

U.S. Patent Application Serial No. **10/523,034**
Amendment filed January 20, 2010
Reply to OA dated October 26, 2009

REMARKS

Claims 1-4, 6-9, 11 and 13 are pending in this application. Claims 4 and 13 are canceled without prejudice or disclaimer. Upon entry of this amendment, claims 1-3, 6-9 and 11 will be pending. Entry of this amendment and reconsideration of the rejections are respectfully requested.

No new matter has been introduced by this Amendment.

Claims 4 and 13 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. (Office action paragraph no. 2)

The rejection is moot in view of the cancellation of claims 4 and 13 without prejudice or disclaimer.

Claims 1-3, 6, 11 and 13 are rejected under 35 U.S.C. §103(a) as obvious over Iwawaki et al., U.S. Patent No. 4,844,734 in view of Chan et al., U.S. Patent No. 4,931,080. (Office action paragraph no. 4)

The rejection of claim 13 is moot in view of the cancellation of claim 13 without prejudice or disclaimer. The rejection of claims 1-3, 6 and 11 is respectfully traversed, and reconsideration is requested.

The Examiner cites Iwasaki for disclosing a granular pesticide that comprises a mineral carrier, where the mineral carrier can be silica, limestone or calcium carbonate. The Examiner states that the mineral carrier can have a particle size smaller than 300 mesh, which corresponds to 40 μm .

The Examiner also states that the mineral carrier can comprise an additive such as amino acid or phosphate. The Examiner states that Iwasaki does not disclose the BET specific surface area limitation of claim 1, and does not teach the limitation of average particle diameter $P \leq 30$.

The Examiner cites Chan for teaching that when forming phytoactive compositions comprising a mineral carrier and an additive, that a smaller particles size improves ease of dispersion of the particles. The Examiner states that it would have been obvious to have employed particles having the size disclosed in Chan in the invention of Iwasaki, and implies that the claimed BET specific surface area would have been inherent in this product "because the same materials would be present in both cases."

First of all, however, Applicant submits that Iwasaki generally discloses a process for preparing a granular pesticide, in which a solution or slurry containing a pesticide and a surfactant is subjected to countercurrent spray drying under specific conditions (column 1, lines 47-59). The surfactant may be a betaine, an amine oxide, an imidazoline, or an organic amino acid such as described in column 2, lines, these amino acids having alkyl or alkenyl groups of 6 to 22 carbon atoms.

When the granular pesticide is a wettable powder, a mineral powder can be **added** in an amount of at most 60% by weight, preferably 2 to 50% by weight (column 4, lines 9-12). This is added to allow easy preparation of a granule having a recessed part (column 4, lines 12-16). The mineral powder may be any of several listed minerals, which include calcium carbonate and silica (column 4, lines 18-23). The Examiner cites the mineral powder to be used in Iwasaki as having

a particle size of less than 300 mesh, to allow the resulting granule to have a “recessed part” (column 4, line 13).

However, **this disclosure of particle size for the mineral powder is not a disclosure of the size of the final granular product** in Iwasaki, since the mineral powder is **added to the slurry and then sprayed** to make the granular product. That is, this mineral powder is only an ingredient in making the final product, and this disclosure regarding the mineral powder in Iwasaki is not a teaching or a suggestion for the particle size of the granular product, and therefore cannot suggest the particle diameter limitation in the present claims.

The only disclosure of the resulting particle size of the granule in Iwasaki seems to be in the Examples summarized in Tables 1 to 4, with classification of sizes as A to E as shown in column 10, lines 18-31. The classification scheme is based on the “proportion of granules having a particle size of **150 μm or larger** based on the whole granules 70% or above,” and only in class E are there less than 10% of such particles. The inventive examples appear to generally fall in class A. It would seem that the granules in Iwasaki’s invention are generally **much larger than 150 μm** , completely outside the average particle diameter range of the present claims.

Applicant therefore submits that the Examiner has misinterpreted the mineral component used in making Iwasaki’s product as the final granular product. The granules in Iwasaki **cannot possibly** meet limitation (a) of claim 1, “ $1.2 \leq P \leq 30$.”

Secondly, Chan et al relates to phytoactive compositions comprising surfactants and phytoactive compounds.

Col. 10, lines 20-23, of Chan et al. states, "In preferred embodiments, the final product is processed into particles ranging from powders having a diameter of about 3 to about 15 microns
"

It is considered from the description at Col. 10, lines 12-20 that this particle diameter is determined from the ease of both dispersion and handling.

As mentioned above, in Iwasaki et al., a mineral powder of particle size smaller than 300 mesh is used to form **a recessed part on the granular pesticide**, while in Chan et al the particle size of about 3 to about 15 microns are determined from **the ease of dispersion and handling**.

Therefore, it cannot be said that it would have been obvious to one of ordinary skill in the art to have employed the particles disclosed in Chan et al. in the invention of Iwasaki et al. since there are no common points whatsoever between the particle sizes of the two. In addition, in the present invention the average particle diameter (a) $1.2 \leq P \leq 30$ is determined by the properties required as the flower thinning agent rather than dispersion and handling as mentioned by Chan et al. That is supported on page 15, lines 3-6 of the present specification, reading:

"When an average particle diameter P exceeds 30 μm , since an additive added to an inorganic composition of poor water solubility is not sufficiently adsorbed, not only durability of effect of the flower thinning agent tends to be insufficient, but also medicine damage is easily caused."

There is no motivation in the cited references to modify Iwasaki to meet the particle limitations of the present claims. In addition, it would be impossible to modify Iwasaki's granules, with particle size **much larger than 150 μm** , to meet the average particle diameter limitation of the present claims.

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The pending claims are not obvious over Iwasaki et al. and Chan et al., taken separately or in combination.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants' undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,
KRATZ, QUINTOS & HANSON, LLP


Daniel A. Geselowitz, Ph.D.

Agent for Applicants
Reg. No. 42,573

DAG/xl

Atty. Docket No. **050050**
Suite 400
1420 K Street, N.W.
Washington, D.C. 20005
(202) 659-2930



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